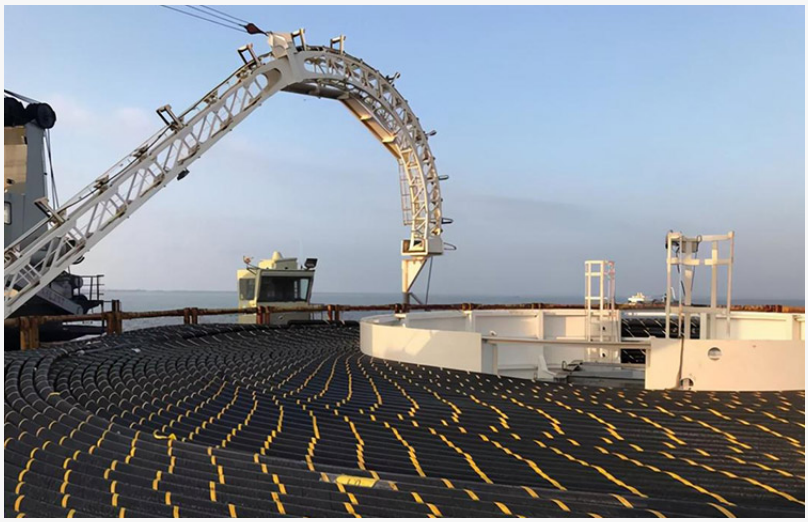
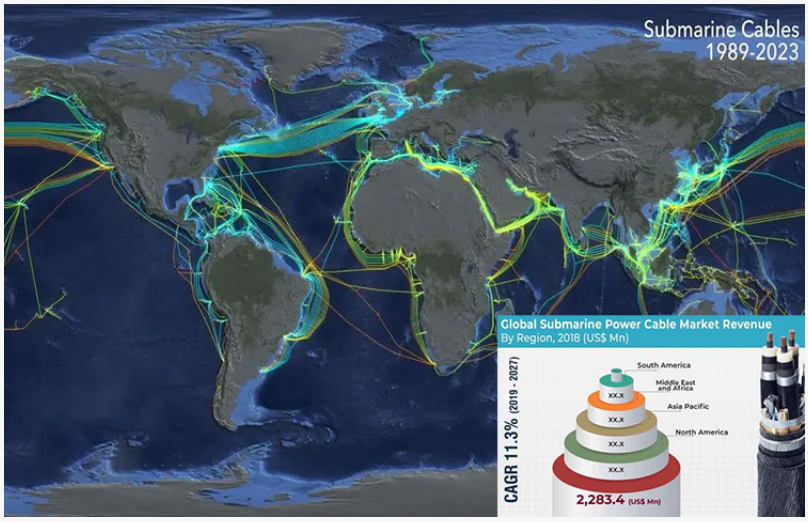
The Serious Impact of Submarine Fiber Optic Cable If it is Cut

More than 95% of the world's transoceanic communications need submarine fiber optic cable, once the cable is damaged, communications will be seriously affected.



XLPE Insulated AC Medium-voltage Submarine Cable With Fiber Optic Cable.



Map of the world's built-up submarine cables linking the distribution of global communication networks

SAN FRANCISCO, 90006, USA, July 23, 2022 /EINPresswire.com/ -- The importance of submarine fiber optic cable

Today's society has been covered by a variety of networks, the network has been tightly linked to the countries of the world, and subsea fiber optic cable to ensure that the global network between the major regions can interconnect the main artery. So how important is the submarine fiber optic cable, once cut off the U.S. economy will collapse?

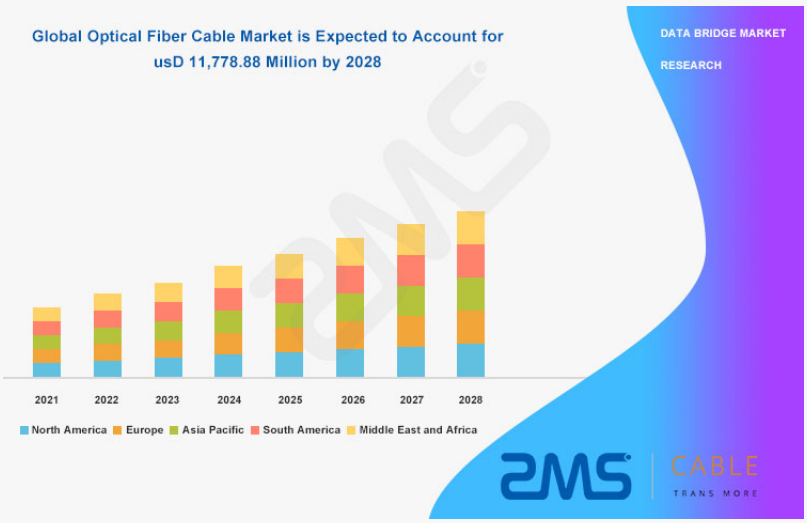
The undersea fiber optic cable has not been introduced for a long time, the world's first submarine cable was built in 1988, this cable connects Europe and the United States, a total of 6,700 kilometers long.

To date, more than 90% of the world's transnational data transmission relies on undersea fiber optic cable.

According to statistics, the total length of global underwater fiber optic cable has reached 900,000 kilometers, which can circle the earth 22 times.

While the United States enjoys the huge geopolitical advantages brought by the ocean, it also

has to face the disadvantages of being far from the major continents. Due to the relatively low cost of shipping, economic trade is not seriously affected, but to maintain smooth communication with the world, it is impossible to do without submarine fiber optic cables.
More than 95% of the world's transoceanic communications need the help of subsea fiber optic cable, once the fiber optic cable under the ocean is damaged, the United States and the world's communications will be seriously affected.



The balance between ultra-low loss and cost optimization is sought in the face of more submarine cable application scenarios.

There are 13 root servers worldwide, 10 of which are in the United States.

ZMS Cable Manufacturing's experience and expertise in challenging construction projects around the world, from the submarine survey - design - laying - to protection, provides a full range of optimal solutions for subsea cable.

The impact is not only on the United States, but also on other countries, because the world's only IPv4 DNS master root server is in the United States, and once the U.S. cable is cut, the global DNS will be affected. Although multiple secondary root servers have been set up outside the US, they can only guarantee access to a portion of users.
If the deep ocean cable is cut, the major DNS service providers should have prepared a plan, and the impact on individual users will not be too great. But for many multinational enterprises, such as securities, banks, and other international institutions, a large amount of data from these institutions will directly lead to business stagnation and even result in large losses if they cannot interact with data from servers in the United States.

In addition, the United States of Google and other large technology Internet companies are also building submarine fiber optic cable, and will soon create a submarine fiber optic cable network. This also means that, with their increasing investment in optical fiber under ocean cables and other related facilities, these U.S. Internet companies will have more and more control over the international Internet in the future.
If these submarine fiber optic cables network are cut off, in a short period these Internet companies will also suffer huge losses.

To prevent this from happening, the United States is also looking for an alternative to the submarine fiber optic cable program.

For example, in the "Starlink" program, a variety of space-based Internet solutions are being tested. But the essence of the satellite in the Starlink program is a WIFI router, the role is to connect the terminal and the local backbone network. Although the network problem can be solved for a short time, fundamentally, the transoceanic space-based communication technology in terms of bandwidth, delay, anti-jamming, and cable in the ocean is not at a level.
The satellite laser broadband communication being developed at this stage is not mature enough and is susceptible to interference, completely unable to meet the needs of transcontinental communication. In other words, in the next 3 to 5 years, submarine fiber optic cable will remain an irreplaceable means of transoceanic communication.

Damage and repair of submarine cables
or submarine communications cables are highly customized products that not only have to withstand high levels of voltage internally but also have to be resistant to corrosion and abrasion externally due to being in the deep ocean.
It is very easy to damage a submarine fiber optic cable, but not so easy to repair a section of it. When the submarine cable is broken, a professional repair ship will rush to the scene.
If the cable is located in shallow water, robots can be dispatched to the water, the cable will be towed to the surface.
If it is 6500 feet (about 1980 meters) or more deep sea area, the repair ship will use the specially manufactured grappling hook to grab the fiber optic cable, and then lift it to the surface for repair. Sometimes the grappling hook will cut off the damaged fiber optic cable, and the repair vessel will let the two ends rise out of the water for repair.

Summary
Here we know, buried in the depths of the submarine communications cable in the end how important, once cut, will have a huge impact on the U.S. economy.
But whether the United States can collapse, I am afraid that the number of fiber optic cables cut off, the United States and the world are connected to some under sea fiber optic cables, and Russia wants to rely on their power to cut off all these cables is not very realistic.

At present, the submarine network carries more than 99% of the data traffic of intercontinental communications and has become an important part of the entire optical communications infrastructure.
For various marine fiber optic cable application scenarios, ZMS Cable has introduced a variety of fiber optic products that seek a balance between ultra-low loss and cost optimization for both repeater and repeaters marine space division multiplexing (SDM) systems.
Provides industry-leading attenuation performance for ultra-long-range, high-rate SDM systems.

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